



## Amelia Lake Report 2002

Amelia Lake is a 100-acre impoundment located entirely within the Amelia Wildlife Management Area in Amelia County, Virginia. The wildlife management area provides easy access to Richmond for a variety of recreational activities including boating and fishing. Amelia Lake is managed to provide a warmwater fishery comprised of largemouth bass, bluegill, redear sunfish, black crappie and channel catfish. Walleye have been stocked in past years but because of poor survival; they have not been stocked since 2000.

Recent samples have indicated what fishermen who frequent Amelia Lake have known for years. The current population of largemouth bass is unbalanced, with a large portion of bass smaller than 300 mm or 12 inches. Densities of largemouth bass (measured in number per hour) are extremely high. Balanced, uncrowded populations generally have catch rates of 100-150 fish/hour. Catch rates of bass in Amelia Lake have increased from 282 fish/hour in 1998 to 496 fish/hour in 2000 to an incredible 540 fish/hour in 2001. These increases occurred despite liberal harvest regulations and removal of fish for stocking in other public waters in recent years. When populations reach such high densities, resources such as food availability become limiting. These limiting factors cause slow growth, poor survival and overall poor health in the bass population.

A typical impact of high predator density is a low density of sunfish. However, catch rates of sunfish at Amelia are normal and there are a few sunfish that are larger than 200mm or eight inches in length. A possible source of the low numbers of sunfish > 8 inches could be a fish kill that occurred in late spring affecting only large sunfish. The actual number and cause of dead fish was not determined, but the fish kill could have been significant enough to affect the population.

During the past few years, biologists have tried to bring the fish population in Amelia Lake into balance. This has resulted in little or undetectable positive results. Some of the management options used during this time include removing the 12-15 inch protective slot on largemouth bass in favor of the more liberal statewide regulation of five fish per day and no size restrictions. Also, bass have been removed in moderate numbers so that they could be stocked in public lakes with low bass densities. To return the fishery to a balanced state, angler harvest must increase and large numbers of bass must be removed and/or transported to other public lakes. Angler harvest should increase with awareness of the new, less restrictive regulation. Also, bass should be removed at much higher numbers and stocked into public lakes around the state.

Amelia Lake is open 24 hours a day to anglers. Gas motors are prohibited, however electric motors are allowed. A handicap accessible fishing pier is available. Amelia Lake can be reached from Rt. 360 by taking state route 604 north and following signs for Amelia Wildlife Management Area.